

Notice of Allowability

Application No.

09/617,592

Examiner

Curtis B. Odom

Applicant(s)

PARK ET AL.

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amdt filed on 12/7/2004.
2. ☒ The allowed claim(s) is/are 13-15, 17-22, 36-41, 45, and 46, which have been renumbered claims 2-5, 1, 6-9, 11-14, 10, and 15-17, respectively.
3. ☒ The drawings filed on 18 July 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S STATEMENTS OF REASONS FOR ALLOWANCE

1. Claims 13-15 and 17-20, which have been renumbered claims 2, 3, 4, 5, 1, 6, and 7 are allowable over prior art references because related references do not disclose recovering data from multi-symbol signaling involving pre-amplifying a received signal, detecting a defining signal region for each symbol, detecting a defining signal transition for each symbol, wherein detecting the transition includes a differencing circuit operable to store a first and second values of differential signals produced from pre-amplifying in a first and second time period. Claims 21 and 22, which have been renumbered claims 8 and 9 are allowable over prior art references because related references do not disclose recovering data from multi-symbol signaling involving pre-amplifying a received signal, detecting a defining signal region for each symbol, detecting a defining signal transition for each symbol, wherein detecting the signal region includes an averaging circuit to store values and provide first and second averages for those values for the pair differential signals. Claims 36-40 and 45, which have been renumbered claims 11-14, 10, and 16 are allowable over prior art references because related references do not disclose recovering data from multi-symbol signaling involving pre-amplifying a received signal, detecting a defining signal region for each symbol, detecting a defining signal transition for each symbol, wherein detecting the signal region includes an averaging circuit, a differential latch amplifier for amplifying the output of the averaging circuit, and a hold circuit. Claims 41 and 46, which have been renumbered claims 15 and 17, are allowable over prior art references because related references do not disclose recovering data from multi-symbol signaling involving pre-amplifying a received signal, detecting a defining signal region for each symbol, detecting a

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defining signal transition for each symbol, wherein detecting the signal transition includes a differencing circuit (taking the difference of samples), a differential latch amplifier for amplifying the output of the differencing circuit, and a hold circuit.


Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Curtis Odom
December 17, 2004


STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600